The influence of working capital and company size on financial performance in SOE Banking Company

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ABSTRACT
This study aims to determine the effects of working capital and company size on the financial performance of state-owned banking companies listed on the IDX. The population of this study was state-owned banking companies registered on the IDX from 2010 to 2019. In this study, 40 samples from four companies were collected using the purposive sampling method and observed for ten years. This research uses the e-views of ten application. The results show that working capital, with a specification of 0.5830 > 0.05 does not affect financial performance. Company size, with a specification of 0.0243 <0.05, affects financial performance. Working capital and company size, with a specification value of 0.000000 <0.05, simultaneously affect financial performance.

KEYWORDS
Working Capital; Company Size; Financial Performance

1. Introduction

The banking industry is trust based. One aspect that cannot be separated is the emergence of competition between banking companies. This situation requires companies to be able to carry out management functions in the fields of finance, marketing, operations, and human resources to have an advantage over competition. This is done to increase company profits. Every company always needs working capital, which is used to finance its daily activities. Working capital is highly influential in a company. Adequate net working capital allows a company to perform its activities. Excessive net working capital results in unproductive funds and is detrimental to the company because these funds are not used effectively for operational activities. On the other hand, a lack of working capital hampers the company's operations, making it difficult to achieve targeted profit.

According to Kasmir (2016), working capital is the capital used to finance company operations while the company operates. This type of capital is short-term and is usually used only for one or several production processes. Working capital is used to purchase raw materials and pay employee salaries, maintenance, and other costs. According to Fahmi (2016), working capital is a company's investment in short-term assets, cash, securities, inventory, and receivables. Working capital is important for companies because, with sufficient working capital, it is possible for the company to

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operate as economically as possible, and the company does not experience difficulties or face dangers that arise due to crises or financial chaos. Working capital is one of the most important aspects of company management. Suppose that a company cannot maintain a satisfactory level of working capital. In that case, it is likely that the company will not be able to pay for its operational activities and may even be liquidated. Sufficiently large current assets cover debts in such a way as to represent a satisfactory level of security (Fahlevi et al., 2019).

Company size can be measured by the size of the company's assets. A company with large assets illustrates that the company has large resources. As assets increase, a company can utilize its resources to maximize its operations (Fahlevi, Moeljadi, Aisjah, & Djazuli, 2023). According to Bringham and Houston 2010 (Stephanie et al., 2018), company size is a company's size, shown or assessed by total assets, total sales, total profits, tax burden, and so on. According to Susilo (2012) and Gusti and Desy (2015), the greater the total assets, the greater the sales or capital of a company, and the greater the size of a company. Company size generally describes the size of the company. The size of a company is determined based on its total sales, total assets, and average sales level. In other words, company size reflects a company's total assets, so it is important for a company to maximize its main objectives.

Financial performance is beneficial to companies. Financial performance is one-way management that can fulfil its obligations to investors to achieve the goals set by the company. According to Fahmi (2017), financial performance is an analysis carried out to determine the extent to which a company has implemented the rules set regarding the appropriate and correct use of finance. According to Sucipto (2003) and Sochib (2016), financial performance is used to measure a company's success in making a profit. Financial performance is an indicator that investors must use to assess a company, starting from the returns given by the company listed on the Indonesia Stock Exchange. The better a company's financial performance, the better the return that an investor will receive on its investment (Yusuf et al., 2024). Investors will seek companies with the best financial performance to invest their capital in that company.

Research on the working capital of state-owned banking companies has shown significant fluctuations over the last few years. At Bank Mandiri (Persero) Tbk, there was a decrease in working capital from 2015 to 2016, but a fairly high increase from 2016 to 2019. Bank BRI (Persero) Tbk and Bank BNI (Persero) Tbk showed good increases during this period. At the same time, Bank BTN (Persero) Tbk experienced a decline in 2010-2011 but experienced a fairly large increase until 2019. Company size, represented by total assets, has increased significantly. The BRI recorded the highest total assets in 2019, followed by the Bank Mandiri. Financial performance, measured by Return on Investment (ROI), fluctuates at each bank. Bank Mandiri recorded an increase in ROI from 2010 to 2013, a decrease until 2016, and an increase until 2019. The BRI increased until 2013, followed by a decrease until 2019. Bank Negara Indonesia experienced fluctuations, whereas Bank Tabungan Negara experienced a decrease from 2010 to 2014, an increase until 2016, and a drastic decline until 2019. In conclusion, state-owned banks' working capital, company size, and financial performance experienced significant changes during the study period. An increase in total assets reflects company growth, while fluctuations in ROI indicate the dynamics of financial performance. This provides a comprehensive picture of state-owned banks' recent economic and business conditions.

2. Research Methods

The research carried out in preparing the thesis proposal is quantitative and intends to explain in depth the company's financial reports and calculate working capital and company size for the last five years after explaining the results of the calculations. The author evaluates, assesses, and interprets Working Capital X1 and Company Size X2 to assess Company Y's financial performance (Return On Investment). The data taken by the author in this research and writing are from the financial reports of state-owned banking companies for ten periods starting from to 2010-2019.

Table 1. Variable Measurement

No	Variable	Operational deftnition	Indicator	Scale
1	Working capital	According to Munawir (2014), working capital is the excess value of assets owned by a company over the total amount of its debts.	• Total Asset • Total Liabilities	Ratio
2	Company Size	According to Rico Wijaya Z, (2017) company size can be measured by transforming the total assets owned by the company into natural logarithm form, the number of assets with a value of hundreds of billions to trillions will be simplified without changing the proportion of the actual number of assets.	Ln (Total Assets)	Ratio
3	Financial performance	According to Fahmi (2017) financial performance is an analysis carried out to determine the extent to which the company has implemented the rules that have been set regarding the appropriate and correct use of finance.	• Net profit after tax Total Assets	Ratio

The research population included banking sector companies listed on the Indonesian Stock Exchange. Furthermore, the sampling method can use purposive sampling; according to Sugiyono (2017), "purposive sampling is a technique for determining samples with certain considerations" (Sutia, Riadi, & Fahlevi, 2020; Zuhri, Juhandi, Sudibyo, & Fahlevi, 2020). Moreover, the sampling in this study was based on established criteria, which included:

a. The company studied was listed on the Indonesian Stock Exchange from 2010 to 2019.

b. The companies studied presented complete financial reports for 2010–2019.

c. The company studied is a state-owned banking company (Persero), registered on the IDX.

Table 2. List of Research Sample Banking Sector Companies

No	Code	Company Name
1	BMRI	Bank Mandiri (Persero) Tbk
2	BBNI	Bank Negara Indonesia (Persero) Tbk
3	BBRI	Bank Rakyat Indonesia (Persero) Tbk
4	BBTN	State Savings Bank (Persero) Tbk

The data collection technique used in this research uses secondary data collected by data collection institutions and published for the data user community. This secondary data supports primary data needs, such as books, literature, and reading related to and support this research. Basuki and Prawoto (2017) state that panel data combine time-series and cross-sectional data.

The application that will assist in the research process is Eviews 10. Quantitative methods were used in this study. In quantitative research, data analysis collects data from all respondents or other data sources. Data analysis grouped data based on vari-

ables and type of respondent, tabulated data based on variables from all respondents, presented data for each variable studied, and carried out calculations to test the proposed hypotheses. A panel regression test was used to determine the influence of the independent variables on the dependent variable. The use of panel data is intended to obtain better estimation results by increasing the number of observations, which has implications for increasing the degrees of freedom.

3. Research Results and Discussion

Panel Regression Analysis

Table 3. Common Effect Model

Dependent Variable: ROI
Method: Least Squares Panel
Date: 02/15/21 Time: 11:14
Sample: 2010 2019
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	1518.127	254.4430	5.966471	0.0000
WORKING CAPITAL	-0.000061	0.000523	-1.165891	0.2511
TOTALASET	0.000193	0.000962	2.005003	0.0523

R-squared	0.172715	Mean dependent var	2041,419
Adjusted R-squared	0.127997	SD dependent var	911.1640
SE of regression	850.8549	Akaike info criterion	16.40240
Sum squared resid	26786301	Schwarz criterion	16.52906
Log likelihood	-325.0480	Hannan-Quinn Criter.	16.44820
F-statistic	3.862313	Durbin-Watson stat	0.816807
Prob(F-statistic)	0.029965		

Source: Eviews 10 outputs.
Source: Eviews 10 outputs.
Source: Eviews 10 outputs.

Model Testing Techniques

The Chow test was performed to determine which model was more appropriate for use between the common and fixed effect tests.

Source: Outlok Eviews 10.

The Chow test results for this model have a probability value of 0.0000, which is smaller than α 0.05; thus, H0 is rejected, and H1 is accepted. The appropriate model for this result is the fixed effect.

Next, the Hausman Test aims to determine whether the random effects model is better than the fixed effects model. If the Chi-Square probability value is smaller than 0.05 (5%), then H0 is rejected, and H1 is accepted; therefore, the best estimation model to use is a fixed effect. Conversely, if the chi-square probability value is greater than 0.05 (5%), H0 is accepted, and H1 is rejected so that a good model to use is a random effect.

The Hausman test results for this model have a probability value of 0.0421, which is smaller than 0.05; then, H0 is rejected and H1 is accepted so that the appropriate

Table 4. Fixed Effect Model

Dependent Variable: ROI
Method: Least Squares Panel
Date: 02/15/21 Time: 11:16
Sample: 2010 2019
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	2649.873	221.0676	11.98671	0.0000
WORKING CAPITAL	0.000538	0.000366	1.468901	0.1511
TOTALASET	-0.000194	0.000823	-2.356999	0.0243

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.737996	Mean dependent var	2041,419
Adjusted R-squared	0.699466	SD dependent var	911.1640
SE of regression	499.5093	Akaike info criterion	15.40261
Sum squared resid	8483325.	Schwarz criterion	15.65594
Log likelihood	-302.0522	Hannan-Quinn Criter.	15.49421
F-statistic	19.15377	Durbin-Watson stat	1.515054
Prob(F-statistic)	0.000000		

model for the Hausman test is a fixed effect.

Normality test

Normality test was carried out to detect whether the residuals had a normal distribution. Based on the normality test results above, it is known that the probability is less than the predetermined level (0.000000 < 0.05); therefore, it can be concluded that the residuals are not normally distributed.

Heteroscedasticity Test

The heteroscedasticity test functions to test for heteroscedasticity in a regression model. By testing the heteroscedasticity assumption, the residuals were expected to have homogeneous variance. Testing the heteroscedasticity assumption can be seen through the Breusch–Pagan Godfrey test. The test criteria state that if all probabilities are > 0.05 significance level, it can be stated that the residual observations are not correlated with each other. The following are the results of the heteroscedasticity test.

Source: Outlok Eviews 10.

Based on the results of the heteroscedasticity test, the probability value for each independent variable is greater than 0.05, indicating that heteroscedasticity does not occur.

Coefficient of Determination (R2)

The coefficient of determination (R2) test was performed to assess the magnitude of the influence of the independent variable on the dependent variable. The results of the determination tests are as follows:

Hypothesis test

a. Partial Test (t-statistic)

A t-test was carried out to determine the partial influence of each independent variable on the dependent variable. The results of the t-test are as follows:

Table 5. Random Effect Model

Dependent Variable: ROI
Method: Panel EGLS (Cross-section random effects)
Date: 02/15/21 Time: 11:17
Sample: 2010 2019
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40
Swamy and Arora estimator of component variances

Variables	Coefficient	Std. Error	t-Statistics	Prob.
WORKING CAPITAL	0.000395	0.000036	1.096952	0.2798
TOTALASET	-0.000148	0.000798	-1.849562	0.0724
C	2519.081	439.1849	5.735811	0.0000

Effects Specification		
	elementary school	Rho
Random cross-section	767.0797	0.7022
Idiosyncratic random	499.5093	0.2978

Weighted Statistics

R-squared	0.127201	Mean dependent var	411.7345
Adjusted R-squared	0.080023	SD dependent var	545.2549
SE of regression	522.9837	Sum squared resid	10119941
F-statistic	2.696179	Durbin-Watson stat	1.294041
Prob(F-statistic)	0.080707		

Unweighted Statistics

R-squared	-0.425318	Mean dependent var	2041,419
Sum squared resid	46149766	Durbin-Watson stat	0.283764

Table 6. Chow Test Results

Redundant Fixed Effects Tests
Equation: FE
Cross-section fixed ef-fects test

EffectsStatistics Test		df	Prob.
Cross-section F	24.451936	(3.34)	0.0000
Chi-square cross-section	45.991524	3	0.0000

Table 7. Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Cross-section random effects test

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	5.559330	2	0.0421

Source: Outlok Eviews 10.

Table 8. Heteroscedasticity Test Results

Dependent Variable: RESABS
Method: Least Squares Panel
Date: 02/27/21 Time: 21:18
Sample: 2010 2019
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	551.8615	90.89313	6.071542	0.0000
WORKING CAPITAL	0.000179	0.000187	0.957824	0.3444
TOTALASET	-0.000693	0.000344	-2.017581	0.0509

Table 9. Determination Coeffticient Test Results (Fixed Effect Model)

R-squared	0.737996
Adjusted R-squared	0.699466

Source: Eviews 10 outputs.

Table 10. T Test Results (Fixed Effect Model)

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	2649.873	221.0676	11.98671	0.0000
WORKING CAPITAL	0.000538	0.000366	1.468901	0.1511
TOTALASET	-0.000194	0.000823	-2.356999	0.0243

Source: Eviews 10 outputs.

b. Simultaneous test (f-statistics)

The F-test was performed to determine the influence of the independent variables on the dependent variable. The F-test results are as follows:

Table 11. F Test Results (Fixed Effect Model)

R-squared	0.737996	Mean dependent var	2041,419
Adjusted R-squared	0.699466	SD dependent var	911.1640
SE of regression	499.5093	Akaike info criterion	15.40261
Sum squared resid	8483325.	Schwarz criterion	15.65594
Log likelihood	-302.0522	Hannan Quinn Criter.	15.49421
F-statistic	19.15377	Durbin Watson stat	1-.515054
Prob(F-statistic)	0.000000		

Source: Eviews 10 outputs.

4. Research Discussion

Panel data regression is a combination of time series and cross-sectional data. The same unit cross section was measured at different times. Based on panel regression analysis with Eviews 10, the results of the fixed-effect model test obtained panel regression similarities as follows:

Yit= αi + β1X1it+ β2X2it+ε it

Yit= 2649,873+0.000538 (working capital) -0.000194 (total assets)

The panel regression equation is as follows:

1. The constant (α) is 2649,873, meaning that if working capital and total assets are zero, the return on investment value is 2649,873.

2. The regression coefficient for working capital is 0.000538, meaning that if the values of other independent variables remain constant and working capital is 1%, the return on investment will decrease by 0.000538. The coefficient is negative, indicating that a negative relationship exists between working capital and return on investment. The higher the working capital, the lower the return on investment. Working Capital Level (X1) has a probability value of 0.1511. The test results show a significance level of > 0.05, so it can be concluded that partially the level of working capital does not affect the return on investment.

3. The coefficient for total assets is -0.000194, meaning that if the value of the other

independent variables remains constant and total assets experience 1%, then the return on investment will decrease by -0.000194. The coefficient is negative, indicating that a negative relationship exists between total assets and return on investment. The higher the total assets, the lower is the return on investment. The Total Asset Level (X2) has a probability value of 0.0243. The test results show a significance level of < 0.05, so it can be concluded that the level of total assets partially affects the return on investment.

Based on the F test carried out on the working capital and total assets variables on return on investment, the F value obtained equals to19.15377 with a probability of 0.000000. The probability value is 0.000000 < 0.05, which means that the probability value is smaller than = 0.05, and working capital and total assets simultaneously/together influence return on investment. The coefficient of determination (R-squared) was 0.737996, which is equal to 73.799%. This figure indicates that working capital and total assets influence return on investment by 73,799%, while the remainder (100–73,799% = 26,201%) is influenced by other variables outside this regression model.

5. Conclusion

This study examines the influence of working capital and total assets on the return on investment in state-owned banks listed on the BEI for 2010–2019. The results show that working capital does not positively affect the return on investment in state-owned banks listed on the BEI for 2010. – 2019. Total assets positively affect the return on investment in state-owned banks listed on the BEI for 2010 – 2019. Working capital and Total Assets positively affect the return on investment in state-owned banks listed on the BEI for the period 2010 – 2019.

Based on the results, investors should better understand the differences between bonds and sukuk so that they can make the right investment decisions according to each investor's goals. In addition, each company must pay attention to several important aspects in order to increase investor interest in return on investment. Furthermore, providing data information about financial reports can be completed according to what is in the financial report, so that future researchers can manage the data as optimally as possible and precisely as desired. Suppose that future researchers will be interested in the same research. In this case, they can add other variables or replace them and increase the number of companies or sample companies to obtain even better results.

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